MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2016/2017

DMG5028 – MANAGEMENT ACCOUNTING 2

(All sections / Groups)

6 MARCH 2017
2.30 p.m – 5.30 p.m
(3 Hours)

INSTRUCTION TO STUDENTS

1. This question paper consists of **6** pages with 5 questions.
2. Answer **ALL** questions.
3. Write your answers in the answer booklet provided.

QUESTION 1

Part A

Atilla recently came across the term "opportunity cost" in her Management Accounting class. However, she is still not very sure of the meaning of the term.

Instructions

(a) Briefly explain to Atilla the definition of opportunity cost. (1 mark)

(b) Explain how may opportunity cost be relevant in a make-or-buy decision? (1 mark)

Part B

Kukuh Metal Works manufactured 5,000 units of a component part that is used in its product and incurred the following costs:

Direct materials	RM40,000
Direct labour	20,000
Variable manufacturing overhead	15,000
Fixed manufacturing overhead	25,000
	RM100,000

Another company has offered to sell the same component part to the company for RM18 per unit. The fixed manufacturing overhead could be reduced by 25% if the component part was purchased from the outside firm.

In addition, if the component part is purchased from the outside firm, Kukuh Metal Works has the opportunity to use the factory equipment to produce another product which is estimated to generate an income of RM20,000.

Instructions

(a) Prepare the incremental analysis for the decision to make or buy the component part. (8 marks)

(b) Should Kukuh Metal Works make or buy the component part? Why? (0.5 mark)

Continued...

Part C

XXMY Sdn. Bhd. has four operating divisions. During the first quarter of 2016, the company reported aggregate income from operations of RM213,000 and the following divisional results.

	Division	
	A, B and C	**D**
	RM	**RM**
Sales	1,150,000	250,000
Cost of goods sold	742,000	200,000
Gross profit	408,000	50,000
Selling & administrative expenses	170,000	75,000
Net income	**RM238,000**	**(RM25,000)**

Analysis reveals the following percentages of variable costs in each division.

	Division			
	A	**B**	**C**	**D**
Cost of goods sold	80%	60%	75%	75%
Selling and administrative expenses	45%	50%	60%	40%

Discontinuance of any division would save 50% of the fixed costs and expenses for that division.

Instruction
Using incremental analysis, determine whether the company should discontinue operating Division D. Justify your answer.

(9.5 marks)

[TOTAL 20 MARKS]

QUESTION 2

Part A

In the long run, a company must price its product to cover its costs and earn a reasonable profit. However, to price its product appropriately, it must have a good understanding of market forces at work. In most cases, a company does not set the price. In other situations, the company sets the price.

Instruction
Identify and explain the two types of pricing environments. (2 marks)

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Part B

Que Engineering is in the process of setting a selling price on a new component it has just designed and developed. The following cost estimates for this new component have been provided for a budgeted volume of 20,000 units.

	Per Unit	Total
Direct materials	RM60	
Direct labour	32	
Variable manufacturing overhead	26	
Fixed manufacturing overhead		RM300,000
Variable selling & administrative expenses	22	
Fixed selling & administrative expenses		180,000

The company uses cost-plus pricing that provides it with a 25% ROI on this new product. RM2,500,000 in assets is committed to production of the new component.

Instructions

(a) Compute each of the following under the full costing approach:
  (i) Markup percentage needed to provide the desired ROI. (8.5 marks)
  (ii) Target price of the new component. (2 marks)

(b) Compute each of the following under the variable-cost approach:
  (i) Markup percentage needed to provide the desired ROI. (5.5 marks)
  (ii) Target price of the new component. (2 marks)

[TOTAL 20 MARKS]

QUESTION 3

Part A

Jolly Festive Company has two service departments, Maintenance and Personnel. Maintenance Department costs are allocated first on the basis of budgeted maintenance-hours, then Personnel Department costs are allocated based on the number of employees. Data on budgeted maintenance-hours and number of employees are as follows:

	Service Departments		Operating Departments	
	Maintenance	Personnel	Plant A	Plant B
Departmental costs before allocation	RM420,000	RM140,000	RM200,000	RM280,000
Maintenance-hours	500	900	1,400	700
Number of employees	50	30	250	750

Instructions

(a) Using the step-down method, allocate the service department costs to the operating departments. (6 marks)

(b) Explain the difference between direct method and step-down method. (2 marks)

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Part B

Fizzy Fuzzy Manufacturing processes direct materials up to the splitoff point where two products, X and Y, are obtained. The following information was collected for the month of March:

Direct materials processed	: 2,500 litres (with 20% shrinkage)	
Production	: X	1,200 litres
	Y	800 litres
Sales	: X	RM20 per litre
	Y	RM15 per litre

The cost of purchasing 2,500 litres of direct materials and processing it up to the splitoff point to yield a total of 2,000 litres of good products was RM10,000. There were no inventory balances of X and Y.

Product X can be further processed to obtain Product X12, and Product Y can be further processed to obtain Product Y77. Following are the monthly data for all the products.

	Joint Costs (RM)		X12 (RM)	Y77 (RM)
Joint costs	10,000			
Separable costs of processing 1,200 litres of X into 1,000 litres of X12			2,000	
Separable costs of processing 800 litres of Y into 600 litres of Y77				3,500
	X	Y	X12	Y77
Beginning inventory (litres)	0	0	0	0
Production (litres)	1,200	800	1,000	600
Transfer for further processing (litres)	1,200	800		
Sales (litres)			900	560
Selling price per litre	RM20	RM15	RM30	RM35

Instruction

Calculate Fizzy Fuzzy Manufacturing's gross margin percentage for X12 and Y77 when joint costs are allocated using the physical measure method.

(12 marks)

[TOTAL 20 MARKS]

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QUESTION 4

The controller of Fiore Resources is responsible for preparing the master budget of the company and has accumulated the following information for the first six months of 2017.

- Expected sales: Q1: 500; Q2: 600; Q3: 700
- Expected selling price per unit: RM60 for the first quarter and then to be increased by 10% in the second quarter.
- Management's policy is to have an ending finished goods inventory each quarter that is equal to 25% of the next quarter's sales.
- It takes 5 pounds of direct materials to produce each unit of product.
- Management's policy is to maintain an inventory of direct materials on hand at the end of each quarter that is equal to 40% of the next quarter's production needs.
- Cost of direct materials per pound is expected to be RM10.
- Expected Q3 production: 750 units
- Each unit of product requires 3 hours of direct labour hour.
- Wage rate per hour is expected to be RM8.

Instruction
Prepare the following budgets by quarters for the six-month period ended 30 June 2017:

(a)	Sales budget	(4 marks)
(b)	Production budget	(4.5 marks)
(c)	Direct materials budget	(8 marks)
(d)	Direct labour budget	(3.5 marks)

[TOTAL 20 MARKS]

QUESTION 5

Part A

Focus Food Industries has budgeted overhead costs of RM500,000. Traditionally, it has allocated the overhead costs based on a plantwide rate to its two products, instruments and gauges, using direct labour hours which are estimated to be 200,000 hours for the current year. Budgeted labour hours for instruments is 120,000 hours and gauges 80,000 hours.

Recently, the management of the company has decided to experiment with activity-based costing and has created two activity cost pools and their related activity cost drivers. An analysis of estimated overhead costs reveals the following activities.

Activities	Cost Drivers	Total Costs
Materials handling	Number of requisitions	RM350,000
Machine setups	Number of setups	150,000

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The cost driver volume for each product was as follows.

Cost Drivers	Instruments	Gauges	Total
Number of requisitions	9,000	11,000	20,000
Number of setups	4,000	6,000	10,000

Instructions

(a) Compute the overhead rate using the traditional (plantwide) approach. (2 marks)

(b) Compute the overhead rates using the activity-based approach. (3 marks)

(c) Compute the allocation of overhead to both types of products (instruments and gauges) using traditional approach and activity-based costing approach. (5 marks)

Part B

The following direct materials and direct labour data, which was extracted from the Standard Cost Card, pertain to the operations of Icey Ice Sdn. Bhd. for 2016.

Icey Ice Sdn. Bhd.
Standard Cost Card

Product A12 Cost Element	Standard Quantity	Standard Price	Standard Cost
Direct materials	10kg	RM15 per kg	RM150
Direct labour	8 hours	RM10 per hour	80
Manufacturing overhead	8 hours	RM5 per hour	40
			RM270

The company expected to produce 20,000 units of Product A12 in 2016.

Actual results for 2016 are as follows:

- 24,000 units of Product A12 were produced.
- Actual direct materials purchased was 250,000kg for RM3,825,000.
- Direct materials used in production was 235,000kg.
- Actual direct labour costs were RM1,891,400 for 193,000 direct labour hours worked.

Instructions

(a) Calculate the material price variance. (2.5 marks)
(b) Calculate the material quantity variance. (2.5 marks)
(c) Calculate the labour price variance. (2.5 marks)
(d) Calculate the labour quantity variance. (2.5 marks)

[TOTAL 20 MARKS]

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